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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,610	03/30/2004	Shinya Wakabayashi	HGM-144-A	4376

21828 7590 09/20/2005

CARRIER BLACKMAN AND ASSOCIATES
24101 NOVI ROAD
SUITE 100
NOVI, MI 48375

EXAMINER

BONCK, RODNEY H

ART UNIT	PAPER NUMBER
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3681

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/813,610

Applicant(s)

WAKABAYASHI ET AL.

Examiner

Rodney H. Bonck

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 03/30/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

The following is a first action on the merits of application Serial No.10/813,610, filed March 30, 2004.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

Receipt is acknowledged of the Information Disclosure Statement filed March 30, 2004. The cited document has been considered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4, 10-12, 17, and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 4 and 17 recite that fins are formed "on the clutch and the pressure plate." The pressure plate is part of the clutch, however, so it is unclear whether these claims are intended to define more than the fins provided on the pressure plate. It is questioned whether "clutch" was intended

to be – clutch outer – in claims 4 and 17. The term “the clutch outer side”, in claims 10, 12, and 19, lacks a proper antecedent basis. The term “ the pressure plate side” in claims 11, 12, and 19, lacks a proper antecedent basis. In claims 11, 12, and 19, the term “the fin shape” does not have a proper antecedent basis.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-9 and 14-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Carhart('804). Carhart discloses a dry multi-disc clutch with a plurality of friction discs 15, 16 are interposed between a drive-side clutch outer 1 and a driven-side clutch center 2 engaged by a pressure plate 23, 24. Fins 22 are formed on the clutch outer and fins 26 are formed on the pressure plate for enhancing the flow of air. Passage 20 is provided in the clutch outer and passage 25 is provided in the pressure plate to allow the communication of air. The clutch of Carhart is for use in a vehicle and is disposed outside the engine crankcase.

Claims 1, 2, 5, 6, 8, 10, 14, 15, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Bullard et al.('235). The Bullard et al. device is a dry clutch, which

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can be considered a multi-disc clutch. Driven clutch plate 10 has a plurality of friction discs 28 that are interposed between a drive-side clutch outer 16 and a driven-side clutch center 14. Fins 32 are provided on the clutch outer. A passage 31 is provided on the clutch outer and a central passage (not numbered) is provided on pressure plate 25. The clutch and pressure plate of Bullard et al. are disposed outside the crankcase of a vehicle engine. Fins 32 provide an axial fan.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 4, 7, 9, 11, 12, 16, 17, and 19 rejected under 35 U.S.C. 103(a) as being unpatentable over Bullard et al.('235) in view of either Alas('074) or Kummer et al.('191). The Bullard et al. device provides an axial fan provided by fins 32 on the clutch outer but does not disclose fins on the pressure plate. Both Alas and Kummer et al. show clutches wherein fins are provided on the pressure plate (24A, 24B of Alas and 94 in Kummer et al.) providing centrifugal fans. It would have been obvious to provide fins on the pressure plate of Bullard et al. in addition to those on the clutch outer, the motivation being to enhance the flow of cooling air.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carhart('804) in view of Iiyama et al.(JP 5-106642). This claim requires that the clutch be "provided on a motorcycle." The Carhart et al. patent does not specify in what type of vehicle it is to be used. The Iiyama et al. device is a dry multi-disc clutch for use in a motorcycle and includes fins 14 to enhance the flow of air. It would have been obvious to provide the air flow-enhancing features of Carhart in the dry multi-disc clutch of Iiyama et al., the motivation being to provide improved clutch cooling.

Conclusion

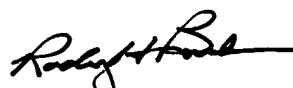
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Flotow et al.('438) is cited to show fins 24 on the pressure plate. Burke('763) shows fins at 31 and 32. Gurney('416) and Alley('353) show other clutch cooling arrangements. Yoshida(JP 3-189419) and Nakayama(JP 59-13129) show other air-cooled motorcycle clutches.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney H. Bonck whose telephone number is (571) 272-7089. The examiner can normally be reached on Monday-Friday 7:00AM - 3:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on (571) 272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Rodney H. Bonck
Primary Examiner
Art Unit 3681

rhb

September 13, 2005